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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,817	12/08/2008	Lars Jorneus	NOBELB.244NP	8735

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EXAMINER

EIDE, HEIDI MARIE

ART UNIT	PAPER NUMBER
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3732

NOTIFICATION DATE	DELIVERY MODE
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09/30/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/583,817	Applicant(s) JORNEUS ET AL.	
	Examiner HEIDI M. EIDE	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/6/2007, 6/18/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on March 6, 2007 and June 8, 2010 are noted. The submissions are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because it contains legal phraseology. Correction is required. See MPEP § 608.01(b).

Drawings

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the

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description: 12. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claim 3 is objected to because of the following informalities: It is believed that "in the range if" is in error for --in the range of--. Appropriate correction is required.
7. Claim 13 is objected to because of the following informalities: It is believed that the period after the "a" on the 3rd line of the claim is a typographical error. Appropriate correction is required.

Specification

8. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The limitation of the groove being greater than 20%. Support for them being 20% or more can be found, but not more than 20%.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, the applicant is claiming a dental implant and how the implant function with respect to forces acted upon the implant, however, that applicant is not positively claiming the forces. In claim 6 it is unclear what the applicant is trying to claim with respect to the claim language "the groove parts extend relation to a cross section through the surface" and in claim 12 "which differs in respect of this pattern from a second implant design". In claims 10-11, the applicant is trying to positively claim the forces acting upon the implant, however, that applicant is claiming the implant and not the method of how the implant is used, therefore it is not clear what the applicant is trying to claim in claims 10-11 with respect to the implant. Further in claim 12 the applicant is claiming the pattern is unique for a first implant design, however, is it not clear what the applicant is trying to claim with respect to "unique". Also in claim 13, the applicant has claimed "the implant is exposed to forces", however, the applicant is not claiming a method, therefore the claims should read the --when the implant is exposed to forces--. Further in the last line of the claim "if appropriate, so on,", however, the use of the language in the claim is indefinite and it is not clear what the applicant is trying to claim.

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11. Claim 2 recites the limitation "the upper and/or lower portion" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 5 recites the limitation "the upper and/or lower portion" in line 2. There is insufficient antecedent basis for this limitation in the claim.

13. Claim 511 recites the limitation "the fitted implant" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

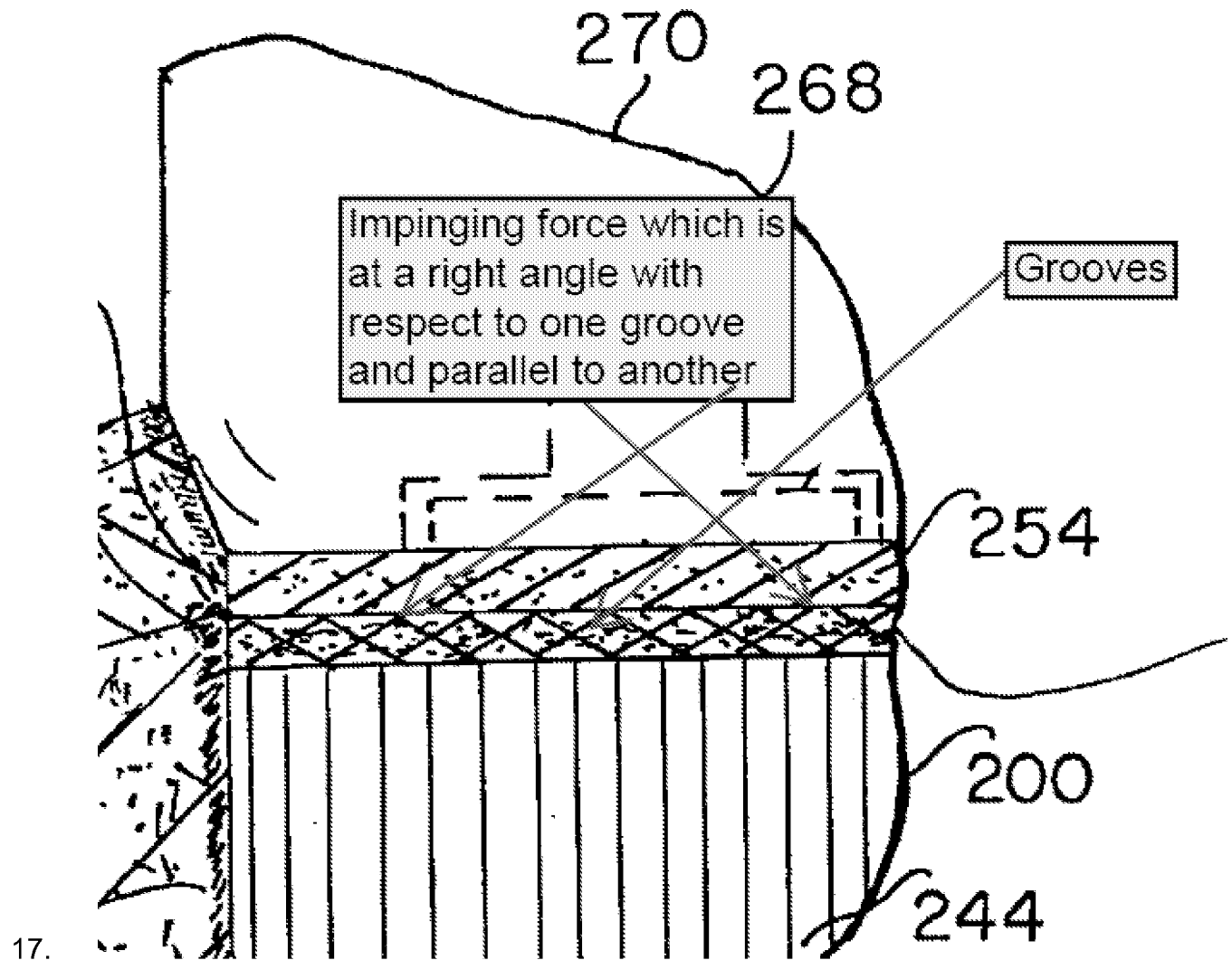
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-2 and 6-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Ricci et al. (6,419,491).

16. Ricci teaches a dental implant for insertion into a hole formed in a jaw bone and exposure to an impinging force or impinging forces (fig. 28), the dental implant comprising peripherally extending surfaces 253 which are arranged at upper/outer portion of the dental implant and are configured to be places against a jaw bone part at an outlet opening of the hole (fig. 28, col. 11, ll. 34-37), wherein each of the peripherally extending surfaces is provided with a pattern of grooves in which greater than 20% of the grooves are capable of being configured so that in the hole the grooves extend substantially at right angles to or parallel to the impinging forces when theses impinging

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forces assume principal direction differing from the longitudinal direction of the implant (fig. 28, see figure below for further explication).



- 17.
18. Ricci further teaches wherein the grooves have no connection to an upper portion (top on the implant collar 254), wherein the pattern comprises straight and parallel grooves with at least two directions of inclination and are arranged round all the peripheral surface and in the groove parts extend in relation to a cross section through

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the surface (fig. 28), wherein the patter comprises sinusoidal groove recess parts (fig. 14, col. 10, ll. 12-17), the patter comprises a group of grooves arranged mutually parallel with different longitudinal extents (fig. 27), the peripherally extending surfaces are formed on a flange arrangement which is cylindrical (fig. 28), wherein the groove pattern is unique for a first implant design (fig. 28) which differs in respect to a second implant design (figs. 1-14, 25-27, col. 8, ll. 56-67, col. 9, ll. 1-12) and wherein when the implant is exposed to forces with mutually different direction and in the a first part or part of the groove patter are substantially at right angles in relation to a first force direction and in the a second part of the patter the grooves are substantially at right angles in relation to a second force direction (see figure above for further explanation). With respect to claims 10-11, the principal direction of the impinging force for the most part is capable of being oblique in relation to the longitudinal direction of the fitted implant because the implant is capable of assuming an include positioning in the hole formed in the jaw bone and the principal direction of the impinging force capable of being for the most part oblique in relation to the fitted implant because of oblique setting of impinging force in the implantation environment.

19. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricci et al. (6,419,491) as applied to claim 1 above, and further in view of Dinkelacker (6,364,663).

20. Ricci teaches the invention as substantially claimed and discussed above, however, does not specifically teach the grooves have a depth which lines in the range of 50-100 μm and a width in the range of 100-150 μm .

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21. Dinkelacker teaches a groove pattern in which the grooves has depth which lines in the range of 50-100 μm and a width in the range of 100-150 μm (col. 3, ll. 41-45, col. 1, ll. 60-67, col. 2, ll. 1-2). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the ranges taught by Ricci with the ranges taught by Dinkelacker in order to correspond the dimensions of the grooves with the dimensions of the osteons to form compact bone.

22. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ricci et al. (6,419,491) as applied to claim 1 above, and further in view of Aravena et al. (2004/0121286).

23. Ricci teaches the invention as substantially claimed and discussed above, however, does not specifically teach an upper portion has an inner socket which is polygonal, toothed or with tow or more wings and the grooves are arranged at the parts of grater material thickness at the upper portion.

24. Aravena teaches an upper portion having an inner socket 28 which is polygonal (fig. 2) and the grooves 22 are arranged at part of greater material thickness at the upper portion (par. 26). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the implant taught by Ricci with an inner socket taught by Aravena in order to allow for a anti-rotation attachment feature for an abutment.

25. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricci et al. (6,419,491) as applied to claim 9 above, and further in view of Wöhrle (6,283,754).

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26. Ricci teaches the invention as substantially claimed and discussed above, however, does not specifically teach the flange arrangement is conical or scalloped.

27. Wöhrle teaches an implant with a flange arrangement which is conical and scalloped (figs. 6-7, 9-12). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the shape of the flange taught by Ricci with the shape taught by Wöhrle in order to follow the natural occurring bone morphology.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. EIDE whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Heidi Eide
Examiner
Art Unit 3732

/Heidi M Eide/
Examiner, Art Unit 3732
9/24/2010

/Cris L. Rodriguez/
Supervisory Patent Examiner, Art Unit 3732